

Translation

PATENT COOPERATION TREATY

PCT/JP2003/005290



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

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| Applicant's or agent's file reference 103-1005 | FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) | |
| International application No. PCT/JP2003/005290 | International filing date (day/month/year) 24 April 2003 (24.04.2003) | Priority date (day/month/year) 24 April 2002 (24.04.2002) |
| International Patent Classification (IPC) or national classification and IPC C08L 95/00 | | |
| Applicant ASAHI KASEI KABUSHIKI KAISHA | | |

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

| | |
|--|--|
| Date of submission of the demand 16 May 2003 (16.05.2003) | Date of completion of this report 12 February 2004 (12.02.2004) |
| Name and mailing address of the IPEA/JP | Authorized officer |
| Facsimile No. | Telephone No. |

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP2003/005290

I. Basis of the report

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed
- ☐ the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the claims:
 pages _____, as originally filed
 pages _____, as amended (together with any statement under Article 19
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the drawings:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | | |
|-------------------------------|--------|-----|-----|
| Novelty (N) | Claims | 1-5 | YES |
| | Claims | | NO |
| Inventive step (IS) | Claims | 4-5 | YES |
| | Claims | 1-3 | NO |
| Industrial applicability (IA) | Claims | 1-5 | YES |
| | Claims | | NO |

2. Citations and explanations

- Document 1: EP 842982 A2 (Daicel Chemical Industries, Ltd.), 20 May 1998
- Document 2: EP 561472 A1 (Shell Internationale Research Maatschappij BV), 22 September 1993
- Document 3: JP 10-168323 A (Petroleum Energy Center), 23 June 1998
- Document 4: EP 174795 A2 (Esso Société Anonyme Française), 19 March 1986
- Document 5: EP 360656 A1 (ELF France, Société Anonyme), 28 March 1990
- Document 6: US 5314935 A1 (Elf Antar France), 24 May 1994
- Document 7: US 5270361 B1 (Bitumar R&D), 14 December 1993
- Document 8: US 4554313 A1 (Elf France), 19 November 1985
- Document 9: US 4242246 A1 (Elf Union), 30 December 1980
- Document 10: US 4145322 A1 (Elf Union), 20 March 1979
- Document 11: WO 97/14754 A1 (Elf Antar France), 24 April 1997

The inventions set forth in claims 1-3 do not involve an inventive step in the light of document 1 or 2 with documents 3-11, cited in the international search report.

Document 1, claims, discloses asphalt containing an epoxy-modified diene-based block copolymer. Document 2,

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claims, discloses a bitumen emulsion which includes a conjugated diene block copolymer which includes strongly hydrophilic functional groups. The claims of documents 3-11 disclose asphalt compositions constituted by adding a styrene/conjugated diene block copolymer and sulphur or a sulphur compound to asphalt. Therefore, a person skilled in the art could easily add sulphur or a sulphur compound disclosed in documents 3-11 to an asphalt composition disclosed in document 1 or 2.

The inventions set forth in claims 4-5 are not disclosed in any of the documents cited in the international search report and are not obvious to a person skilled in the art.